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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: YOUNGER AHLUWALIA

Art Unit: 1794

Serial No.: 10/766,649

Examiner: Victor S. Chang

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REPLY BRIEF

This is a Reply Brief filed in conjunction with the Appeal to the Board of Appeals in the above-referenced application. The present Reply Brief is filed in response to the Examiner's Answer, dated April 27, 2009. The present Reply Brief is being timely filed within two (2) months of the Examiner's Answer. Accordingly, the Appellant respectfully requests that the Appeal Board consider the arguments presented hereinbelow.

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REPLY BRIEF

I. Status of Claims

The Examiner's Answer did not object to the Status set out in Appellant's Brief On Appeal. For convenience, that Status is repeated here.

The status of the claims is as follows:

- Claims 2-6, 8-12, 14, 15 are withdrawn from consideration but not canceled.
- Claims 1, 7, 13, and 16-20 stand finally rejected and are under appeal.

II. Grounds of Rejection To Be Reviewed On Appeal

The Examiner's Answer did not object to the grounds of rejection to be reviewed as set out in Appellant's Brief On Appeal. For convenience, those grounds to be reviewed are repeated here.

1. Whether Claims 1, 7, 13, and 16-20 are not obvious under 35 U.S.C. §103{ TA \l "35 U.S.C. § 103" \s "35 U.S.C. § 103" \c 2 } over U.S. Patent No. 6,093,481 (Lynn et al.), in view of U.S. Patent No. 6,365,533 (Horner Jr. et al.) and U.S. Patent No. 5,713,974 (Martin et al.)?

III. Argument

A. The Office Failed to Articulate a Proper Rationale for Establishing a *Prima Facie* Case of Obviousness

Appellant respectfully submits that the Office has still failed to articulate a proper rationale for establishing a *prima facie* case of obviousness against Claims 1, 7, 13 and 16-20.

As previously pointed out, it is well established that the Office bears the burden of establishing a *prima facie* case of obviousness. *See* MPEP § 2142. If the Examiner does not produce a *prima facie* case of obviousness, then the Appellant is under no obligation to submit evidence of nonobviousness. *Id.*

In *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007) (quoting, with approval, *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)), the Supreme Court reiterated the well-established principle that “rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” Thus, at the very least, in order to establish a *prima facie* case of obviousness, the Office must analyze the *Graham* factors and articulate reasoning with some rational underpinning to support the asserted obviousness conclusion. Merely relying on conclusory statements renders an asserted *prima facie* case of obviousness deficient.

Additionally, post *KSR*, the Federal Circuit has established a more detailed obviousness analysis for inventions that fall within the composite material and chemical compound arts, as opposed to inventions that fall within the electrical and mechanical arts. Particularly, with regard to composite materials, even when the prior art suggests

that a combination may be obvious to try, the Federal Circuit recognizes that a critical question under § 103 includes 1) examining whether the specified classes of materials proposed by the prior art comprise a large number of substances with quite different properties, and 2) determining whether the various combinations of those materials are compatible depending on how they are assembled to reach a proposed combination. *See, Sud-Chemie Inc. v. Multisorb Tech. Inc.*, 554 F.3d 1001, 1006 (Fed. Cir. 2009) (“However, in concluding that Komatsu teaches the use of compatible polymeric materials, the district court failed to acknowledge that the specified classes of materials comprise a large number of substances with quite different properties, and that various combinations of those materials can be compatible or incompatible depending on how they are assembled in layers to form the container.”).

Appellant previously submitted that the Office failed to establish a *prima facie* case of obviousness against Claims 1, 7, 13 and 16-20 in the Office Action of April 29, 2008 (Final Office Action) because the Office offers only the conclusory statement that, since all of elements of Claim 1 are allegedly well known, it would have been obvious to one of ordinary skill in the art to modify Lynn et al. to arrive at Appellant’s claimed invention in order to improve the durability and the thermal insulation value of the facer.

In the Examiner’s Answer, the Office attempted to clarify the rationale provided in the Final Office Action in support of the Office’s outstanding position that it would be obvious to incorporate the facer of Horner Jr. et al. as a facing sheet 11 or 12 within the faced insulation board 10 of Lynn et al., and that it would be obvious to modify the facer of Horner Jr. et al., after being added to face insulation board 10 of Lynn

et al., with the microspheres alluded to in Martin et al. In doing so, however, and in apparent recognition that the previous rationale relied upon by the Office is deficient, the Office now relies upon additional conclusory statements that lack the necessary technical analysis to establish a *prima facie* case of obviousness against Claim 1, 7, 13 and 16-20.

On page 5 of the Examiner's Answer, the Office states:

However, since the prior art references are of the same field of endeavor (facers), combining the components to obtain beneficial effects for an improved product is *prima facie* obvious to one of ordinary skill in the art.

...
Absence of any evidence that the combination would necessarily fail, nor any process limitation in the claim language, appellants' speculative arguments relating to the process requirements lack any credible support, and are immaterial to the patentability.

In short, the Office has dismissed its requirement to articulate reasoning with some rational underpinning to support the asserted obviousness conclusion simply because the references relied upon are of the same field of endeavor and lack a teaching that the proposed combination would fail.

Similar to the obviousness analysis performed by the district court in *Sud-Chemie*, which the Federal Circuit held was improper, the Office fails to acknowledge that the specified classes of materials proposed by Lynn et al. for the facing sheets 11 or 12 comprise a large number of substances with quite different properties, and thus require additional analysis for determining whether the various combinations of those materials are compatible depending on how they are assembled to reach a proposed combination. The Final Office Action, Examiner's Answer, and file wrapper history, are all completely lacking of any analysis in this regard.

For at least these reasons, Appellant submits that the Office did not meet its burden of establishing a *prima facie* case of obviousness against Claims 1, 7, 13 and 16-20 in view of Lynn et al., Horner Jr. et al., and Martin et al., and that the Office's mere conclusory statements relied upon are insufficient. Accordingly, the rejection under 35 U.S.C § 103(a) is believed obviated, and its withdrawal is respectfully requested.

B. The Cited Art Does not Render the Present Claims Obvious

Supplemental to Appellant's position that the Office has failed to establish a rational underpinning to support its obviousness rejection, Appellant respectfully asserts that the combination of Lynn et al., Horner Jr. et al. and Martin et al. does not render Claims 1, 7, 13 and 16-20 obvious.

Appellant acknowledges that Lynn et al. discloses that "[w]here one of the facing sheets [11 or 12] is a non-inventive type, this sheet may be any conventional foam facer which supports the enhanced board properties contributed by the inventive facer." Col 3., lines 35-39. However, Lynn et al. limit the non-inventive foamed facers that may be employed by indicating that "the thickness of the facing sheets is generally from about 0.3 mil to 5 mils" and that preferably "each of facing sheets 11 and 12 [whether inventive or non-inventive] is about 0.3-5 mils thick." See Lynn et al., Col. 5, lines 36-37 and Lynn et al., Col. 3, lines 39-40, respectively. The facer of Horner Jr. et al. is, at least, 15 mils thick and possibly as much as 130 mils thick because the facer includes a foam coating which is 5 mils to 100 mils thick (Col. 4, lines 6-15) and a fibrous mat which is from 10 mils to 30 mils thick (Col. 3, lines 34-35). Lynn et al. teach away from using such a relatively thick facer, as described by Horner Jr. et al. Notwithstanding, of the infinite number of facers that may meet these requirements set forth by Lynn et al., the

Office proposes incorporating the comparatively thick facer disclosed by Horner Jr. et al. as a facing sheet 11 or 12 of Lynn et al. The Office further proposes modifying the facer of Horner Jr. et al., after being added to face insulation board 10 of Lynn et al., with the microspheres alluded to in Martin et al.

The Office contends that Appellant's arguments regarding Lynn et al. and Horner Jr. et al., based on the thickness of the facers, are not persuasive, stating that "the thickness of the foamed layer is absent from the [instant] claims." Examiner's Answer, page 5. Whether the instant claims recite a thickness is irrelevant to whether Lynn et al. teaches away from employing the facer of Horner et al. in the invention disclosed in Lynn et al.

In addition, the Office incorrectly states that "Lynn is silent about the thickness of a foamed outer layer" (Examiner's Answer, page 5, last line), which the Office equates with the facer disclosed by Horner Jr. et al. Lynn et al. specifically state, with reference to FIG. 1, that the "faced insulation board 10 of this invention [has] outer facing sheets 11 and 12, at least one being formed of a polymeric layer or film of the invention." Col. 3, lines 26-28 (emphasis added). Lynn et al. further states "where one of the facing sheets [11 or 12] is a non-inventive type, this sheet [11 or 12] may be any conventional foam facer which supports the enhanced board properties contributed by the inventive facer." Col. 3, lines 36-39. Lynn et al. then specifically recite the thickness limitations for facing sheet 11 or 12, inventive or non-inventive, as being from about 0.3 mil to 5 mils thick. *See, e.g.*, Col. 5, lines 36-37 and Col. 3, lines 39-40.

The Office contends that "[t]here is no reason whatsoever to believe that Lynn's facer necessarily requires a thickness which would render the foamed layer

formed of Horner's coating composition nonfunctional." Examiner's Answer, page 6.

To reach this conclusion requires that the specific teachings for the thickness requirements of facers 11 and 12 in Lynn et al. be completely ignored.

The Office then alleges that "appellants have admitted that Horner teaches a foamed coating having [a] thickness from *about* 5 to 100 mils," and that these endpoints overlap with the facers of Lynn et al. *Id.* The Office has misinterpreted Appellant's arguments. It is true that Horner Jr. et al. teach a foam coating that is 5 mils to 100 mils thick. However, the facers of Horner Jr. et al. comprise a coating and a preformed mat. *See* Horner Jr. et al., Col. 3, lines 1-5. The mat of Horner Jr. et al. is between about 10 and about 30 mils thickness. *Id.* lines 34-35. Thus, as noted above, the facers of Horner Jr. et al. have a thickness from about 15 mils to about 130 mils. Accordingly, there is no overlap of endpoints, as contended by the Office. In fact, at best, the facers of Horner Jr. et al. are 3 times thicker than the thickest proposed facers of Lynn et al. and as much as 433 times thicker than the thinnest facers proposed by Lynn et al.

For at least these reasons, Appellant submits that the Office has not established a *prima facie* case of obviousness against claims 1, 7, 13 and 16-20 in view of Lynn et al., Horner Jr. et al., and Martin et al. and that these references, whether taken alone or in combination do not teach or suggest the present claims. Accordingly, the rejection under 35 U.S.C § 103(a) is believed obviated, and its withdrawal is respectfully requested.

CONCLUSION

Appellant respectfully submits that the 35 U.S.C. § 103(a) rejections of record are deficient for at least the foregoing reasons. Accordingly, withdrawal of the rejections is respectfully requested.

Respectfully submitted,

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